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09/657,068	09/07/2000	Kenneth M. Buckland	062891.0362	1585

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EXAMINER	
WILSON, ROBERT W	
ART UNIT	**PAPER NUMBER**
2661	

DATE MAILED: 03/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/657,068	BUCKLAND, KENNETH M.	
	Examiner	Art Unit	
	Robert W Wilson	2661	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12 October 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3-7,9-16,18-33,35-38 and 40* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3-5,9-11, 16, 18-36* is/are rejected.

7)☒ Claim(s) *12-15,37,38 and 40* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Claim Rejections - 35 USC § 102

1.0 The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2.0 Claims 1, 3, 5, & 10 are rejected under 35 U.S.C. 102(E) as being anticipated by Johnstone (U.S. Patent No.: 6,512,821).

Referring to Claim 1, Johnstone teaches: 110 per Fig 1 or col. 2 line 54-col. 3 line 67 processes traffic in an access network (method).

110 per Fig 1 or col. 2 line 54-col. 3 line 67 receives a plurality of ingress streams of IP traffic from either dial IP modems (125 per Fig 1) or IP router (box between 120 and 130 per Fig 1) (CPE). The IP packets inherently have a destination address. (receiving a plurality of ingress traffic streams)

110 per Fig 1 or col. 2 line 54-col. 3 line 67 aggregates or combines the traffic and sends to a ISP (backbone) included in a backbone network. It is inherent that the ISP routes the packets based on the destination address; otherwise, users cannot be connected to the Internet.

In Addition Johnstone teaches:

Regarding Claim 3, 110 per Fig 1 or col. 2 line 54-col. 3 line 67 receives ingress traffic from dial IP modems (125 per Fig 1) or IP router (box between 120 and 130 per Fig 1) (CPE) and then the traffic streams are combined and sent to the ISP (backbone network)

Regarding Claim 5, 110 per Fig 1 or col. 2 line 54-col. 3 line 67 has an input port for receiving the ingress traffic before aggregation of the traffic is performed.

Regarding Claim 10, 110 per Fig 1 or col. 2 line 54-col. 3 line 67 receives egress IP traffic from the ISP (backbone) which inherently has an IP address. 110 per Fig 1 or col. 2 line 54-col. 3 line 67 determines which dial IP modem (CPE port) to route the packet to based upon destination address and routes the traffic to the respective port. The IP packets are transmitted from the modem ports to the host that are connected to the modems.

Claim Rejections - 35 USC § 103

3.0 The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4.0 Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Johnstone (U.S. Patent No.: 6,512,821) in view of Isoyama (U.S. Patent No: 6,418,145)

Referring to claim 4, the Johnstone teaches the method of claim 1, aggregating by 110 per Fig 1 before being sent to the ISP.

Johnstone does not expressly call for: validating an IP packet

Isoyama teaches: determining if a IP header is defective or validating an IP packet per col. 3 lines 30-41

It would have been obvious to add the validating an IP packet of Isoyama to the method of Johnstone in order to determine if the packet is defective before transferring the packet in order to reduce the processing load

5.0 Claims 11, 16, & 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Johnstone (U.S. Patent No.: 6,512,821 B1) in view of Kaycee (U.S. Patent No.: 6,085,245)

Referring to Claim 11, Johnstone teaches the method of claim 10.
Johstone does not expressly call for: determining the CPE ports for the IP packet using a static routing table but teaches PVCs per col. 4 lines 1-14

Kaycee teaches a static routing table per col. 1 line 30-col. 2 line 4.

It would have been obvious to add the static routing table of Kaycee to routing the PVCs in the network of Johnstone because PVC utilize fixed or static routing.

Referring to Claim 16, Johnstone teaches: a system (Fig 1) for processing access traffic

110 per Fig 1 or col. 2 line 54-col. 3 line 67 receives a plurality of ingress streams of IP traffic from either dial IP modems (125 per Fig 1) or IP router (box between 120 and 130 per Fig 1) (CPE) and aggregates or combines the traffic and sends to a ISP (backbone) (Means for aggregating)

110 per Fig 1 or col. 2 line 54-col. 3 line 67 receives egress traffic from the ISP (backbone). The IP packets inherently have an IP destination address.

Johnstone does not expressly call for: static routing or utilizing the IP address to index the static routing table but teaches PVC to the ISP per Fig 1.

Kaycee teaches: static routes col. 1 line 30-col. 2 line 4) and static routing tables inherently utilize the IP address to index the static routing table.

It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize the static routing table of Kaycee to route the IP packets in the PVCs of Johnstone because static routing is faster than dynamic routing because the route tables do not have to converge.

Referring to Claim 36, it is within the level of one skilled in the art at the time of the invention to implement the method of claim 11, in software or logic. It would have been obvious to one of ordinary skill in the art at the time of the invention to store the software on a computer processable medium so that the logic can be executed on a processor.

6.0 Claims 20-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Johnstone

(U.S. Patent No.: 6,512,821) in view of Mendelson (U.S. Patent No.: 6,343,083)

Referring to Claim 20, Johnstone teaches: Fig 1 routes traffic in an
access network

110 per Fig 1 or col. 2 line 54-col. 3 line 67 receives a plurality of ingress streams of IP traffic from either dial IP modems (125 per Fig 1) or IP router (box between 120 and 130 per Fig 1) (CPE). Each IP packet inherently has an address.

110 per Fig 1 or col. 2 line 54-col. 3 line 67 receives egress traffic from the ISP (backbone traffic) for delivery to the dial IP modems (125 per Fig 1) or IP router (box between 120 and 130 per Fig 1) (CPE).

Johnstone does not expressly call for: segmenting the ingress IP packets at the CPE interface of the access network into asynchronous transport mode (ATM) adaption layer (AAL) cells, wherein the AAL cells include virtual private interface/virtual connection interface (VPI/VCI) address generated from the IP addresses of the IP packets

Segmenting the egress IP packets at a network interface into AAL cells, and switching the AAL cells across the access network

Switching the AAL cells across the access network but teaches that the multiservice access platform is connected to the Internet via ATM wherein the IP packets are converted to ATM per col. 8 line 52-54 but teaches ATM PVCs per col. 4 lines 1-14

Milles teaches: ATM AAL5 is utilized for segmentation of IP packets into ATM packets per col. 1 lines 7-32. It should be noted that ATM AAL5 inherently utilizes the IP destination address to determine the VPI/VCI and that ATM AAL5 is inherently switched across.

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the segmentation of IP packets into ATM as well as switching of Milles to the ATM access network of Johnstone in order to implement the ATM network compliant with ATM standards.

Referring to Claim 21, the combination of Johnstone & Milles taught the method of claim 20, the combination did not expressly call for: converting IP to ATM via AAL5. Milles teaches: conversion of IP to ATM via AAL5. It would have been obvious to utilize AAL 5 of Milles to the perform the conversion of IP to ATM of Johnstone in order to be standards compliant.

Referring to Claim 22, the combination of Johnstone & Milles taught the method of claim 20, the combination did not expressly call for: comprising reassembling the AAL cells into IP packets at a periphery of the access network but taught segmentation of IP packets into AAL5 per col. 1 lines 5-31

It would have been to one of ordinary skill in the art at the time of the invention add the inverse process to convert the ATM cells to IP packets at the end of the network (reassembling the AAL cells into IP packets) of Milles to the network of Johnstone in order that the IP packets can be routed to their final destination in a standards compliant manner.

Referring to Claim 23, the combination of Johnstone & Milles taught the method of claim 20, the combination did not expressly call for: comprising delineating the IP packets

Milles teaches adding an ATM header to each IP packet which delineates the IP packets per col. 1 lines 5-32. It would have been obvious to add the ATM header of Milles to the combination Johnstone and Milles in order to be standards compliant.

7.0 Claims 24-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Johnstone

(U.S. Patent No.: 6,512,821) in view of Milles (U.S. Patent No.; 6,463,476) in view of Isoyama

(U.S. Patent No: 6,418,145)

Referring to Claim 24, the combination of Johnstone & Milles taught the method of claim 22, the combination did not expressly call for: validating an IP packet

Isoyama teaches: determining if a IP header is defective or validating an IP packet per col. 3 lines 30-41

It would have been obvious to add the validating an IP packet of Isoyama to the the method of the combination of Johnstone & Milles in order to determine if the packet is defective before transferring the packet in order to reduce the processing load

Referring to Claim 25, the combination of Johstone & Milles taught the method of claim 22, the combination did not expressly call for: dropping defective IP packets

Isoyama teaches: dropping defective IP packets per col. 3 lines 30-41.

It would have been obvious to add the dropping of defection packets of Isoyama to the method of the combination of Johnstone & Milles in order to reduce the processing load.

8.0 Claims 26-30 & 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Johnstone (U.S. Patent No.: 6,512,821)

Referring to Claim 26, it is within the level of one skilled in the art at the time of the invention to implement the method of claim 1, in software or logic. It would have been obvious to one of ordinary skill in the art at the time of the invention to store the software on a computer processable medium so that the logic can be executed on a processor.

Referring to Claim 27, it is within the level of one skilled in the art at the time of the invention to implement the method of claim 3 which describes the details of receiving ingress streams, in software or logic. It would have been obvious to one of ordinary skill in the art at the time of the

invention to store the software on a computer processable medium so that the logic can be executed on a processor

Referring to Claim 28, it is within the level of one skilled in the art at the time of the invention to implement the method of claim 3 which describes the details of transmitting combined traffic to inherent ISP (backbone router), in software or logic. It would have been obvious to one of ordinary skill in the art at the time of the invention to store the software on a computer processable medium so that the logic can be executed on a processor

Referring to Claim 29, it is within the level of one skilled in the art at the time of the invention to implement the method of claim 5, in software or logic. It would have been obvious to one of ordinary skill in the art at the time of the invention to store the software on a computer processable medium so that the logic can be executed on a processor.

Referring to Claim 30, Johnstone teaches the system of Claim 26, and 110 per Fig 1 or col. 2 line 54-col. 3 line route IP packets from the ingress traffic streams to a inherent network port of an access device ingress streams of IP traffic from either dial IP modems (125 per Fig 1) or IP router (box between 120 and 130 per Fig 1) (CPE). The IP packets inherently have a destination address. (receiving a plurality of ingress traffic streams). It is within the level of one skilled in the art at the time of the invention to implement the limitations of claim 30 in software or logic. It would have been obvious to one of ordinary skill in the art at the time of the invention to store the software on a computer processable medium so that the logic can be executed on a processor.

Referring to Claim 35, it is within the level of one skilled in the art at the time of the invention to implement the method of claim 10, in software or logic. It would have been obvious to one of ordinary skill in the art at the time of the invention to store the software on a computer processable medium so that the logic can be executed on a processor

Referring to Claim 36, it is within the level of one skilled in the art at the time of the invention to implement the method of claim 11, in software or logic. It would have been obvious to one of ordinary skill in the art at the time of the invention to store the software on a computer processable medium so that the logic can be executed on a processor

Claim Rejections - 35 USC § 112

9.0 The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1,3-7, 9-15, 18-19, 20-25, 26-33, 35-38, & 40 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Referring to Claims 1 & 26, What is meant by "destination address" and "destination addresses". Are "destination address" and "destination addresses" the same?

Referring to Claims 6, 18, 20, & 31; What is meant by "interface/virtual" and "VPI/VCI". Does the slash mean "and" or does the slash mean "or"?

Referring to claim 18, what is meant by "incoming packets"? Are they ingress or egress packets?

Claim Objections

10.0 Claims 6-7 & 30 are objected to because of the following informalities:

Referring to Claim 6, the examiner objects to the wording of claim 6 because the independent claim 1 limitation is that the ingress traffic is combined traffic stream without regard to the destination address and claim 6 defines how the traffic is routed based upon destination address. The two concepts are inconsistent. How can the traffic not be routed based upon destination address and then be routed based upon destination address? The examiner suggests that the applicant clarify the claim language.

Referring to Claim 30, The examiner objects to the wording of "streams to a network interface ports". It seems that the applicant is trying to say "streams from a network interface port". Please clarify. Appropriate correction is required.

Claim Objections

11.0 Claims 12-15, 37-38 & 40 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims as well as overcoming the 112/2nd rejection..

Response to Arguments

12.0 Applicant's arguments with respect to claims 1, 3-7, 9-16, 18-33, 35-38, & 40 have been considered but are moot in Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action.

Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Conclusion

13.0 Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert W Wilson whose telephone number is 571/272-3075. The examiner can normally be reached on M-F (8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau T. Nguyen can be reached on 571/272-3126. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Robert W. Wilson

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